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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/069,193 | 02/14/2002 | Martin F. Hill | 44599 | 1615 |

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THE DOW CHEMICAL COMPANY
INTELLECTUAL PROPERTY SECTION
P. O. BOX 1967
MIDLAND, MI 48641-1967

EXAMINER

ZIMMER, MARC S

ART UNIT PAPER NUMBER

1712

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,193

Applicant(s)

HILL ET AL.

Examiner

Marc S. Zimmer

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-11 and 16-21 is/are allowed.
- 6) ☒ Claim(s) 1,4 and 5 is/are rejected.
- 7) ☒ Claim(s) 2,3,6,7 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, ~~4~~, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson, U.S. Patent # 3,617,211. Dawson discloses a dyestuff composition that comprises among other things, 50 parts *by volume* of ethylene carbonate and 695 parts *by volume* of ethylene glycol monomethyl ether. In assessing the validity of these references towards the claimed invention, it is first necessary to convert the parts in volume to parts in weight using the densities of these materials (1.32 g/ml and .965 g/ml respectively).

Wt. parts of ethylene carbonate:

$$50 * 1.32 = 66$$

Wt. parts of ethylene glycol monomethyl ether:

$$695 * .965 = 670.65$$

The weight percent of ethylene carbonate is therefore $66 / (66 + 670.7) = .089(100)$ or 8.9% and the weight contribution of the glycol monoether is 91.1%. It is appreciated that this second figure is slightly outside of the range set forth for the content of the glycol monoether but Applicant has not provided any criticality for this limit. Indeed, the only thing definitively established by the Specification is that some amount of an organic carbonate is necessary. One of ordinary skill would not expect that the claimed

composition would be significantly affected in an adverse way by increasing the amount of monoether content to 91% hence the subject matter of the aforementioned claims is obvious over the prior art.

As for claim 5, this claim is rejected because it further limiting of an embodiment of claim 1 that did not represent the Examiner's foundation for rejection. The Examiner rejected the claims over those instances where the protic solvent content is negligible.

U.S. Patent Nos. 4,720,569 and 5,449,474 were cited by the ISA as being particularly relevant to the instant invention but the present Examiner disagrees. In both instances, the level of carbonate incorporation is substantially higher than what is prescribed by Applicant hence they effectively teach away from the claims. The Examiner also discovered JP 9-120785 which teaches the same combination of solvents but, otherwise, teaches away from the instant invention for at least the reason that the organic solvents are combined with water where the aqueous content is better than 80% of the host liquid. Everett et al., U.S. patent # 5,407,977 is cited as being of interest because they attempt to solve the same problem as does Applicant but methoxyacetone is used instead of an organic carbonate.

There were hundreds of references that disclosed comprehensive lists of suitable solvents that included a monoalkyl glycol, a carbonate, and mixtures thereof. However, there simply was no motivation to select these two particular solvents from the large number of choices recited in each document.

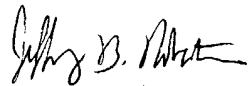
Claims 2-3, 6-7, and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 8-11 and 16-21 are allowed because the Examiner did not find any references that even suggest using a host matrix comprising a glycol monoether and an organic carbonate as a solvating medium for an epoxy/dicyandiamide system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 571-272-1096. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 19, 2004


JEFFREY B. ROBERTSON
PRIMARY EXAMINER